## ABSTRACT

A voltage regulator of a vehicle AC generator is comprised of a field current switching circuit connected to a field coil, a control circuit for controlling the field current switching circuit according to an output voltage of the armature coil; a power circuit for supplying electric power to the control circuit, a power drive circuit for controlling supply of electric power of the power circuit to the control circuit, and a rotation speed sensor. The power drive circuit supplies electric power from the power circuit to the control circuit if the rotation speed becomes as high as a predetermined speed.